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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,394	06/26/2001	Akifumi Okigawa	193052/2000	9467

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EXAMINER

COLON, GERMAN

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/888,394

Applicant(s)

OKIGAWA ET AL.

Examiner

German Colón

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 13 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 5-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "said second area" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio (US 6,479,934) in view of Kanae et al. (US 5,990,617).

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Regarding claim 1, Nishio discloses an AC type PDP comprising: a first substrate 16 having first electrodes 17, a second substrate 11 arranged in an opposed relation to said first substrate to form a discharge space 19 therebetween; discharge gas filed in said discharge space; second electrodes 12 formed on said substrate, each said second electrode having a plurality of openings 10 each having an area with a diameter of 10 – 20  $\mu\text{m}$  (see Col. 5, line 40); and a dielectric layer 13 covering said second electrodes. Nishio fails to disclose a dielectric layer covering the first electrodes.

However, in the same field of endeavor, Kanae discloses a PDP with first electrodes covered by a dielectric layer with the purpose of insulating the electrodes from a discharge space and/or as a surface of a cutting-preventing film for protecting the electrodes and the insulative substrate from being sandblasted (see Col. 3, lines 10-13). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the first electrodes of the PDP of Nishio with a dielectric layer in order to insulate the electrodes from a discharge space and/or as a surface of a cutting-preventing film for protecting the electrodes and the insulative substrate from being sandblasted.

Regarding claim 4, Nishio-Kanae discloses a PDP wherein a length of each opening is in a range from 0.2 times to 1.8 times the thickness of said dielectric layer (see Kanae, Col. 3, lines 52-53).

#### *Allowable Subject Matter*

6. Claims 2, 3 and 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The Examiner notes that the Prior Art of Record discloses a an AC type PDP comprising: a first substrate having first electrodes, a second substrate arranged in an opposed relation to said first substrate to form a discharge space therebetween; discharge gas filed in said discharge space; second electrodes formed on said substrate, each said second electrode having a plurality of openings each having an area with a diameter of 10 – 20  $\mu\text{m}$ ; and a dielectric layer covering said second electrodes.

Regarding claim 2, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 2, and specifically comprising the limitation of “the openings having a width in a range of 5 - 30  $\mu\text{m}$  and having a strip-shaped configuration”.

Referring to claim 3, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 3, and specifically comprising the limitation of “each said opening having a configuration including a combination of a plurality of openings having different configurations”.

Referring to claim 5, claim 5 is allowed for the reasons given in claim 2, because of its dependency status from claim 2.

Referring to claim 6, claim 6 is allowed for the reasons given in claim 3, because of its dependency status from claim 3.

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Regarding claims 7 and 8, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claims 7 and 8, and specifically comprising the limitation of "each said parallel electrode is constructed by a first area along a discharge and a second area where the openings are formed".

Regarding claim 9, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 9, and specifically comprising the limitation of "a plurality of strip-shaped openings where the smaller the ratio of a total area of said openings to an area of said strip-shaped areas is the closer to the discharge gap".

Referring to claims 10-11, claims 10-11 are allowed for the reasons given in claim 7, because of its dependency status from claim 7.

Regarding claim 12, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 12, and specifically comprising the limitation of "each parallel electrode pair is constructed by a first area and a second area where said openings are arranged in the first area in a row direction and in the second area in a line direction".

#### ***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Marcotte, in U.S. Patent No. 6,118,214, discloses an AC PDP with electrodes having apertures.

Amemiya, in U.S. Patent No. 5,640,068, discloses a PDP with display electrodes having an aperture (Fig. 10A-10B).

Kawanami et al., in U.S. Patent No. 6,333,599, discloses a PDP where display electrodes are constructed having two parts, one of them having apertures (Fig. 11).

Park et al., in U.S. Patent No. 6,384,531, discloses a PDP with electrodes having apertures (Fig. 6 and 7).

Fleming et al., in U.S. Patent No. 6,111,357, discloses an EL device, where electrodes have apertures of different configurations (Figs. 6A-6C).

#### *Contact Information*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
gc

November 29, 2002

  
NIMESHKUMAR D. PATEL  
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